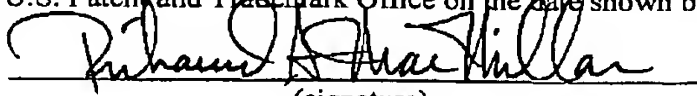


FEB 28 2007

PATENT

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Richard S. MacMillan
(name of person signing certificate)

Date: February 28, 2007 No. of Pages: 5

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:)	
DAVID W. BAINBRIDGE)	Group Art Unit 1771
)	
Serial No. 10/685,965)	Examiner Hai Vo
)	
Filed: October 15, 2003)	Confirmation No. 8637
)	
For: COMPOSITE MATERIALS)	Attorney Docket 1-28036
MADE FROM PRETREATED,)	
ADHESIVE COATED BEADS)	

Commissioner For Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

PRE-APPEAL BRIEF REQUEST FOR REVIEW
AND ACCOMPANYING REMARKS

Honorable Sir:

The applicant respectfully requests review of the Final Rejection of the Examiner dated November 29, 2006 in the above-identified application. No amendments are being filed with this request. The accompanying remarks are submitted with the concurrently filed Notice Of Appeal pursuant to the procedure specified in the Notice published in the Official Gazette on July 12, 2005.

Independent Claim 1 defines the invention as a composite material that includes a plurality of beads having electrical excitation zone-treated surfaces. The beads have average diameters between about 1 and about 10 mm, and at least 50 percent of the beads are at least 50 percent coated with an adhesive. A cured form of the adhesive

has a hardness ranging from about Shore A 25 to about Shore A 95 and is used in a quantity such that it represents between about 20 percent and about 80 percent of the weight of the composite material. The beads and the adhesive create a system of void spaces. Independent Claims 32 and 33 respectively define the invention as a construction material and a padding material having the same structure.

The Examiner rejected independent Claims 1, 32, and 33 under 35 U.S.C. 103(a) as being obvious in view of the combined teachings of the Kasahara et al., Frankel et al., and DVD references. These rejections are respectfully traversed.

The Kasahara et al. reference discloses a porous foam plate that is used to stabilize or support the stalk of a plant grown by a hydroponic method. The Kasahara et al. foam plate is formed from a plurality of polystyrene or polyethylene beads that have a particle diameter of about 2 to about 20 mm. The surfaces of such beads are coated with a liquid adhesive such that the beads are bonded to one another. Thus, the Kasahara et al. reference fails to disclose the claimed limitations of (1) the plurality of beads having electrical excitation zone-treated surfaces, and (2) the cured form of the adhesive having a hardness ranging from about Shore A 20 to about Shore A 95.

The Examiner relies upon the DVD reference to supply the teaching of the plurality of beads having electrical excitation zone-treated surfaces. However, the DVD reference is non-analogous art to the claimed invention and therefore, should not be considered at all when evaluating the patentability of the claimed invention.

With respect to the first leg of the test for analogous art, the field of the DVD reference (namely, the in-line surface treatment of bulk plastic articles) is quite different from the field of the claimed invention (namely, composite material comprised of polymeric beads and adhesive). In other words, the field of the DVD reference relates to the surface treatment of previously manufactured articles, while the field of the claimed invention relates to the manufacture of the article itself. Thus, the field of the DVD reference is clearly not within the field of the claimed invention.

With respect to the second leg of the test for analogous art, the problems addressed by the DVD reference (namely, the difficulties associated with adequately bonding of inks, labels, and the like to the surface of an article) are quite different

from the problems addressed by the claimed invention (namely, the problems associated with the manufacture of composite materials that are highly breathable, water permeable (especially in all three directions) light in weight, conformable to the human body, and able to withstand repeated blows without mechanically breaking down and/or bottoming out) - see specification Page 8, Lines 20-25. Thus, the DVD reference is clearly non-analogous art to the claimed invention and, therefore, should not be considered at all when evaluating the patentability of the claimed invention.

However, even if the DVD reference is analogous art to the claimed invention, the teachings thereof are incompatible with the teachings of the Kasahara et al. reference and, therefore, cannot be properly combined therewith. As mentioned above, the Kasahara et al. reference discloses a porous foam plate that is used to stabilize or support the stalk of a plant grown by a hydroponic method. The DVD reference relates to the in-line surface treatment of bulk plastic articles, specifically the use of a plasma surface treatment to increase the surface tension, dyne level, and wettability of an article to enhance bonding of coatings, inks, or other adhesives. The Examiner stated that the motivation for combining the teachings of the Kasahara et al. reference and the DVD reference was "to provide an increase in the surface energy of the beads, thereby enhancing adhesive strength between the adhesive and the beads." However, there is no disclosure whatsoever contained in the Kasahara et al. reference that suggests that the adhesive strength between the beads that form the porous foam plate needs to be increased, as suggested by the Examiner. Rather, it is just as likely that an increase in the adhesive strength between the beads that form the Kasahara et al. porous foam plate would result in a structure that is unsuitable for use in the disclosed hydroponic method. Certainly, the DVD reference provides no motivation whatsoever for applying the disclosed plasma treatment to a porous foam plate that is used to stabilize or support the stalk of a plant grown by a hydroponic method. Absent any reasonable suggestion or motivation in the references, the combination of the teachings proposed by the Examiner must fail.

Even if the teachings of the Kasahara et al. reference and the DVD reference are combinable, the resultant structure is quite different from the claimed invention.

As mentioned above, the Kasahara et al. reference discloses a porous foam plate. The DVD reference relates to a process for the surface treatment of an article. A proper combination of the two references would result in the porous foam plate of the Kasahara et al. reference being subjected to the surface treatment disclosed in the DVD reference. Thus, the combined teachings of the two references does not result in the claimed structure, wherein the plurality of beads having electrical excitation zone-treated surfaces. Rather, the combined teachings of the two references results in a porous foam plate having only an outer surface that is surface treated. Thus, even if the teachings of the Kasahara et al. reference and the DVD reference are combined, the claimed invention is not achieved. Accordingly, the rejections are untenable and must be withdrawn.

Additionally, the Runkles Declaration filed on September 14, 2006 traverses the rejections and provides facts in support of the arguments made above. In the Final Rejection, the Examiner stated that the Runkles Declaration was "ineffective to overcome the finding of obviousness." However, the reasons for this are not clearly expressed.

First, the Examiner stated that the DVD reference teaches a "powdered material having a surface treated with plasma discharge to provide an increase in the surface energy of the material, thereby enhancing the adhesive strength of the material. This is the particular problem with which the Applicants [sic] were concerned" (emphasis added). This statement is simply incorrect. As set forth above and in the Runkles Declaration, the claimed invention addresses the problems associated with the manufacture of composite materials that are highly breathable, water permeable (especially in all three directions) light in weight, conformable to the human body, and able to withstand repeated blows without mechanically breaking down and/or bottoming out) - see specification Page 8, Lines 20-25. Thus, the Examiner's statement regarding the problems addressed by the claimed invention is not only unsupported, but clearly contrary to the specification and the evidence of record.

Second, the Examiner observed that the Applicant stated "that increasing the adhesive strength between the beads would result in a structure that is unsuitable for

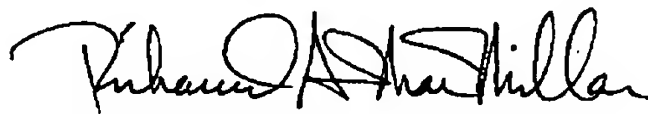
use in the disclosed hydroponic method." The Examiner's observation incorrectly recites the Applicant's remarks. The remarks made by the Applicant read as follows:

"there is no disclosure whatsoever contained in the Kasahara et al. reference that suggests that the adhesive strength between the beads that form the porous foam plate needs to be increased, as suggested by the Examiner. Rather, it is just as likely that an increase in the adhesive strength between the beads that form the Kasahara et al. porous foam plate would result in a structure that is unsuitable for use in the disclosed hydroponic method. Certainly, the DVD reference provides no motivation whatsoever for applying the disclosed plasma treatment to a porous foam plate that is used to stabilize or support the stalk of a plant grown by a hydroponic method. Absent any reasonable suggestion or motivation in the references, the combination of the teachings proposed by the Examiner must fail."

Thus, the Examiner has clearly misrepresented the arguments made by the Applicant. Additionally, the Examiner referred to the Shannon et al. and Minoji references in support of her argument against this misrepresented argument. Although the Shannon et al. and Minoji references were previously of record in this application, this is first reliance upon such references in support of the Examiner's rejections. Accordingly, because such reliance constitutes a new ground of rejections, the finality of the Office Action dated November 29, 2006 is inappropriate and must be withdrawn.

In conclusion, the Examiner's rejections must be withdrawn because they are not supported by the art of record. Additionally, the Examiner's rejections must be withdrawn because they are fully traversed by the factual evidence contained in the Runkles Declaration of record.

Respectfully submitted,



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